

I claim:

1. A cooling system for a marine propulsion device, comprising:

a water pump for drawing water from a body of water in which said marine
5 propulsion device is operated;

an engine having a cylinder head and a cylinder block;

an exhaust conduit connected in fluid communication with said engine to
conduct exhaust gasses away from said engine;

a first cooling passage disposed in thermal communication with said
10 cylinder head;

a second cooling passage disposed in thermal communication with said
exhaust conduit;

a third cooling passage disposed in thermal communication with said
cylinder block, said first and second cooling passages being connected in series
15 with each other and with said third cooling passage, wherein an outlet of said water
pump is connected in fluid communication with said water pump to cause at least
half of the water flowing through said third cooling passage to first flow through
said first and second cooling passages, said first cooling passage being connected
serially between said water pump and said second cooling passage.

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2. The cooling system of claim 1, wherein:

said first and second cooling passages being connected between said water
pump and said third cooling passage.

25 3. The cooling system of claim 1, wherein:

an inlet of said first cooling passage is disposed below an outlet of said first
cooling passage, an inlet of said second cooling passage being disposed above an

outlet of said second cooling passage, an inlet of said third cooling passage being disposed below an outlet of said third cooling passage, said outlet of said third cooling passage being configured to return said cooling water to said body of water.

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4. The cooling system of claim 1, further comprising:

a charge air cooler having a fourth cooling passage, said fourth cooling passage having an inlet connected to said outlet of said water pump.

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5. The cooling system of claim 4, further comprising:

an oil cooler having a fifth cooling passage, an inlet of said fifth cooling passage being connected to an outlet of said fourth cooling passage, whereby water flows in a serial path through said fourth and fifth cooling passages.

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6. A cooling system for a marine propulsion device, comprising:

a coolant pump for inducing a flow of coolant through said cooling system;

an internal combustion engine having a cylinder head and a cylinder block;

an exhaust conduit connected in fluid communication with said engine to conduct exhaust gasses away from said engine;

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a first coolant conduit disposed in thermal communication with said cylinder head;

a second coolant conduit disposed in thermal communication with said exhaust conduit;

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a third coolant conduit disposed in thermal communication with said cylinder block, said first, second, and third coolant conduits being connected in series fluid communication with each other, wherein an outlet of said coolant pump is connected in fluid communication with said first, second, and third coolant

conduits, said first coolant conduit being disposed serially between said coolant pump and said second coolant conduit; and

whereby at least half of the coolant flowing through the third coolant conduit has first passed through said first and second coolant conduits.

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7. The cooling system of claim 6, wherein:

said first and second coolant conduits are connected between said coolant pump and said third coolant conduit.

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8. The cooling system of claim 7, wherein:

an inlet of said first coolant conduit is disposed below an outlet of said first coolant conduit, an inlet of said second coolant conduit being disposed above an outlet of said second coolant conduit, an inlet of said third coolant conduit being disposed below an outlet of said third coolant conduit, said outlet of said third
15 coolant conduit being configured to return said coolant water to said body of water.

9. The cooling system of claim 8, wherein:

said outlet of said third coolant conduit is configured to return said water to said body of water.

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10. The cooling system of claim 9, further comprising:

a charge air cooler having a fourth coolant conduit, said fourth coolant conduit having an inlet connected to said outlet of said water pump.

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11. The cooling system of claim 10, further comprising:

an oil cooler having a fifth coolant conduit, an inlet of said fifth coolant conduit being connected to an outlet of said fourth coolant conduit, whereby water flows in a serial path through said fourth and fifth coolant conduits.

5 12. A cooling system for a marine propulsion device, comprising:

an engine having a cylinder head and a cylinder block;

an exhaust conduit connected in fluid communication with said engine to conduct exhaust gasses away from said engine;

10 a cylinder head cooling passage disposed in thermal communication with said cylinder head;

a exhaust conduit cooling passage disposed in thermal communication with said exhaust conduit;

15 a cylinder block cooling passage disposed in thermal communication with said cylinder block, wherein, said cylinder head cooling passage, exhaust conduit cooling passage, and cylinder block cooling passage are connected in series with each other to receive a flow of cooling water and configured to conduct at least half of the flow of said cooling water through said cylinder block cooling passage after said cooling water flows through said cylinder head cooling passage and exhaust conduit cooling passage; and

20 a water pump for drawing said cooling water from a body of water in which said marine propulsion device is operated, an outlet of said water pump being connected to an inlet of said cylinder head cooling passage.

13. The cooling system of claim 12, wherein:

25 an inlet of said cylinder head cooling passage is disposed below an outlet of said cylinder head cooling passage, an inlet of said exhaust conduit cooling passage being disposed above an outlet of said exhaust conduit cooling passage,

an inlet of said cylinder block cooling passage being disposed below an outlet of said cylinder block cooling passage, said outlet of said cylinder block cooling passage being configured to return said cooling water to said body of water.

5 14. The cooling system of claim 13, further comprising:

a charge air cooler having a fourth cooling passage, said fourth cooling passage having an inlet connected to said outlet of said water pump.

15. The cooling system of claim 14, further comprising:

10 an oil cooler having a fifth cooling passage, an inlet of said fifth cooling passage being connected to an outlet of said fourth cooling passage, whereby water flows in a serial path through said fourth and fifth cooling passages, said cylinder head cooling passage, exhaust conduit cooling passage, and cylinder block cooling passage being disposed in parallel with said fourth and fifth cooling passages.